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Jean-Sebastien Straetmans

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

HOLLWEG, THOMAS A

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2879

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,636	Applicant(s) STRAETMANS ET AL.	
	Examiner Thomas A. Hollweg	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgment of Amendment

1. Applicant's Amendment of November 11, 2009, is acknowledged. No claims are added or canceled. Claims 1-6, 8-19 and 21-23 are currently pending.
2. Amendments to claims 11 and 18 are acknowledged. The previous objections to these claims are withdrawn.

Claim Objections

3. The following claims are objected to because of the following informalities:
 - a. Claim 21, the "the at least one end closure member" lacks antecedent basis. It is assumed that the at least one end closure member is the aforementioned "cap".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Newly amended claim 10 reads "wherein the coating layer is located on the discharge vessel between the discharge vessel and the sealant, and wherein the sealant is located on the coating layer between the coating layer and the at least end closure member." For both of these conditions to be present, there must be a coating

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layer between the discharge vessel and the sealant and between the sealant and the end closure member. However, the method in claim 10 only requires "coating at least one of the end closure member and the discharge vessel with a coating layer."

7. It is not clear how a coating layer can be both between the discharge vessel and sealant and between the sealant and the end closure member, when only one coating process is required. For this reason, the metes and bounds of claim 10 cannot be determined. For examination it is assumed that both the end closure member and the discharge vessel must be coated with a coating layer.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6, 10, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al., U.S. Patent No. 6,139,386.

10. **With regard to claim 1**, in figure 12, Suzuki discloses a high-pressure burner comprising: at least one end closure member (17), and a discharge vessel (11, 12) that includes at least one end part (**60**) and a discharge cavity, wherein at least one coating layer (62A) and a sealant (61) are located and gas-tight connected between the end part (60) of the discharge vessel (11, 12) and the end closure member (17), wherein the at least one coating layer (62A) is located on the at least one end part (60) of the discharge vessel (11, 12) between the at least end part (60) and the sealant (61), and

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wherein the sealant (61) is located on the at least one coating layer (62A) between the at least one coating layer (62A) and the at least one end closure member (17), the end closure member (17) includes a feed-through opening (17a) for filling the discharge cavity (col. 8, lines 16-18), and a feed-through member (5) that extends through the feed through opening (17a) and is gas-tight connected to the end closure member (17) (col. 22, lines 5-39).

11. **With regard to claim 2**, in figure 12, Suzuki discloses that wherein the gas-tight bonding of the coating layer (62A) and the sealant (61) to the discharge vessel (11, 12) and the end closure member (17) is stronger than a direct gas-tight bonding of the sealant (61) to the end closure member (17) and discharge vessel (11, 12) (col. 3, lines 43-47).

12. **With regard to claim 3**, in figure 12, Suzuki discloses that the coating (62A) layer has an expansion coefficient in the range between $4 \cdot 10^{-6}$ and $12 \cdot 10^{-6} \text{ K}^{-1}$ (inherent of the materials (col. 4, lines 7-13 & 43-45)).

13. **With regard to claim 4**, in figure 12, Suzuki discloses that the coating layer (62A) is chemically resistant towards oxides and iodides (col. 4, line 30).

14. **With regard to claim 5**, in figure 12, Suzuki discloses that the coating layer (62A) is of a material comprising at least Mo (col. 4, line 28).

15. **With regard to claim 6**, in figure 12, Suzuki discloses that the coating layer (62A) covers the at least one end part (60) (col. 22, lines 5-19).

16. **With regard to claim 10**, in figures 12, 20 and 21, Suzuki discloses a method of manufacturing a gas-tight high-pressure burner that includes an end closure member

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(17) a feed through member (5), and a discharge vessel (11, 12, 60) comprising: coating at least one of the end closure member (17) and the discharge vessel (11, 12, 60) with a coating layer (62A-C), gas tight connecting the end closure member (17) to the discharge vessel (11, 12) using a sealant (61), wherein the coating layer (62A) is located on the discharge vessel (11, 12, 60) between the discharge vessel (11, 12, 60) and the sealant (61), and wherein the sealant (61) is located on the coating layer (62A) between the coating layer (62A) and the at least end closure member (17), filling the discharge vessel (11, 12) with an ionisable filling through a feed through opening (17a) in the end closure member (17), and closing the feed-through opening by inserting the feed-through member (5) through the feed-through opening (17a) and gas-tight connecting the feed-through member (5) to the end closure member (17), (col. 11, lines 4-67; col. 22, lines 5-39).

17. **With regard to claim 21**, in figures 12, 20, 21 and 28, Suzuki discloses a method of assembling a lamp comprising: first sealing at least one cap (17) to a discharge vessel (11, 12, 60), the cap (17) comprising an opening (17a), the first sealing comprising increasing temperature and/or pressure within the vessel (11, 12, 60) and using a sealant (61) and a coating (62A), wherein the coating (62A) is located on the discharge vessel (60) and between the discharge vessel (60) and the sealant (61), and wherein the sealant (61) is located on the coating (62C) between the coating (62C) and the at least one end closure member (17); after sealing, filling the vessel (11) with at least one desired salt and/or at least one desired filling gas, through the opening (17a); positioning at least one feed through member (5) in the opening after the vessel is filled

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(col. 31, lines 54-64), such that the at least one feed through member (5) extends through the opening (17a) and into the discharge vessel (11); and second sealing the at least one feed-through member in the opening (17a) using a technique resulting in substantially less temperature and pressure increase within the vessel than was required by the first sealing so that the sealing and coating from the first sealing are not damaged by temperature and pressure from contents of the vessel (col. 11, lines 4-67; col. 22, lines 5-39; col. 33, lines 1-7).

18. **With regard to claim 23**, in figure 12, Suzuki discloses that the coating layer (62A) is of a material comprising at least W (col. 4, line 28).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki as applied to claim 1 above, in view of itself.**

21. **With regard to claim 8**, Suzuki, in figure 12, discloses all of the limitations, except figure 12 does not expressly disclose that a cross-section of the feed through opening varies along a longitudinal axis of the end closure member.

22. Suzuki, in figure 19, teaches a high-pressure burner where a cross-section of the feed through opening varies along a longitudinal axis (col. 27, lines 5-7), so that the feed-through member (6) may be inserted more easily.

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23. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the high-pressure burner of Suzuki, figure 12, where a cross-section of the feed through opening varies along a longitudinal axis of the end closure member, as taught by Suzuki, figure 19, so that the feed-through member may be inserted more easily.

24. Claims 9 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, in view of Hendricx et al., WO 00/67294.

25. **With regard to claim 9**, in figure 12, Suzuki discloses a discharge vessel (11, 12) that includes an end part (60) and a discharge cavity (13), an end closure member (17) that includes a feed-through opening (17a) for filling the discharge cavity (col. 8, lines 16-18), a feed through member (5) that extends through the feed-through opening (17a) and is gas-tight sealed to the end closure member (17), wherein at least one coating layer (62A) and sealant (61) are located gas-tight connected between the end part (60) of the discharge vessel (11, 12) and the end closure member (17), wherein the at least one coating layer (62A) is located on the end part (60) of the discharge vessel between the end part (60) and the sealant (61) and wherein the sealant (61) is located on the at least one coating layer (62A) between the at least one coating layer (62A) and the at least one end closure member (17) (col. 22, lines 5-39).

26. Suzuki does not expressly disclose that the discharge vessel is in an automotive headlamp.

27. Hendricx, in figure 1, teaches a lamp comprising a gas-tight high-pressure burner (3) that is arranged in an automotive headlamp unit (page 2, lines 8-27).

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28. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the lamp disclosed by Suzuki, in an automotive headlamp unit, as taught by Hendricx, because it has excellent color rendering and long life, characteristics making it particularly good for use in a complex shape headlamp.

29. **With regard to claim 11**, in figure 12, Suzuki discloses a lamp that includes a gas-tight high-pressure burner, the burner including: a metal halide discharge vessel (11, 12) that includes an end part (60) and a discharge cavity (13); an end closure member (17); a sealant (61); a feed-through opening (17a) in the end closure member (17) for high-pressure filling the discharge cavity (13), a feed-through member (5) that extends through the feed-through opening (17a) via a gas-tight connection to the end closure member (17); and a coating layer (62A-C) covering the end part (60) of the discharge vessel (11, 12), wherein the coating layer (62A-C) is located on the end part (60) between the end part (60) and the sealant (61), and wherein the sealant (61) is located on the coating layer (62C) between the coating layer (62C) and the end closure member (17), gas tight bonding the end closure member (17) and the discharge vessel (11, 12) via the coating layer being stronger than gas-tight bonding of the end closure member and the discharge vessel via the sealant (col. 22, lines 5-39).

30. Suzuki does not expressly disclose that the lamp is in an automotive headlamp.

31. Hendricx, in figure 1, teaches a lamp comprising a gas-tight high-pressure burner (3) that is arranged in an automotive headlamp unit (page 2, lines 8-27).

32. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the lamp disclosed by Suzuki, in an automotive headlamp

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unit, as taught by Hendricx, because it has excellent color rendering and long life, characteristics making it particularly good for use in a complex shape headlamp.

33. **With regard to claim 12**, in figure 12, Suzuki discloses that the coating layer has an expansion coefficient in the range between $4 \cdot 10^{-6}$ and $12 \cdot 10^{-6} \text{ K}^{-1}$ for temperatures in the range of 298 K to 2174 K (inherent of the materials (col. 4, lines 7-13 & 43-45)).

34. **With regard to claim 13**, in figure 12, Suzuki discloses that the coating layer (62A) is chemically resistant towards oxides and iodides (col. 4, line 30).

35. **With regard to claim 14**, in figure 12, Suzuki discloses that the coating layer (62A) is of a material comprises a material selected from the group comprising at least W, Mo, and/or Pt (col. 4, line 28).

36. **With regard to claim 15**, in figure 12, Suzuki discloses that the sealant and the feed-through member comprise materials that are needed for welding, laser welding, resistance welding, soldering, brazing bonding with adhesive materials, primary shaping, sintering, sealing or any combination thereof (col. 4, line 28; col. 8, line 31).

37. **With regard to claim 16**, the Examiner notes that the claim limitation “the feed-through member is introduced into the feed-through opening after the discharge vessel is filled” limitation is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation has been considered, but not patentably distinct

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over Suzuki (see MPEP 2113). The examiner further notes that Suzuki anticipates this limitation (col. 31, lines 54-64).

38. **With regard to claim 17**, Suzuki, in figure 12, and Hendricx disclose all of the limitations, as described in the rejection of claims 11 and 16 above, except figure 12 does not expressly disclose that the feed-through opening has an outer cross section area and an inner cross section area nearer the discharge cavity, and the outer cross section area is greater than or equal to the inner cross section area.

39. Suzuki, in figure 19, teaches a high-pressure burner where the feed-through opening has an outer cross section area (89a) and an inner cross section area (of section 81) nearer the discharge cavity, and the outer cross section area (89a) is greater than or equal to the inner cross section area (col. 27, lines 5-7), so that the feed-through member (6) may be inserted more easily.

40. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the high-pressure burner of Suzuki and Hendricx where the feed-through opening has an outer cross section area and an inner cross section area nearer the discharge cavity, and the outer cross section area is greater than or equal to the inner cross section area, as taught by Suzuki, figure 19, so that the feed-through member may be inserted more easily.

41. **With regard to claim 18**, in figure 12, Suzuki discloses that the end closure members are made of a functionally graded cermet material including first and second materials denominated A and B arranged such that, in select portions, concentration of compound A substantially increases where component B decreases causing gradients

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of both A and B, while an outer layer and the end closure member has a constant concentration of A and B (col. 6, lines 22-34).

42. **With regard to claim 19**, in figure 12, Suzuki discloses that compound A comprises Al_2O_3 and compound B comprises Mo (col. 6, lines 22-34).

43. **Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, as applied to claim 1 above, in view of Sobieski, U.S. Patent No. 4,110,657.**

44. **With regard to claim 22**, Suzuki discloses all of the limitations, except it does not expressly disclose that the coating layer is of a material comprising at least Pt.

45. Sobieski, in figure 1, teaches a high-pressure burner (11) having an end portion sealing member (22) with a Pt coating to avoid corrosion from the gas fill (col. 3, lines 33-41).

46. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Suzuki high-pressure burner, of claim 1, where the coating layer is of a material comprising at least Pt, so that the end closure member is protected from corrosion from the gas fill, as taught by Sobieski.

Response to Arguments

47. Applicant argues that the prior art reference, Suzuki does not disclose the claim limitation, a coating layer located on the end part of the discharge vessel between the end part and the sealant, and a sealant is located on the coating layer between the coating layer and the end closure member. The examiner respectfully disagrees.

48. As shown in figure 12, the end portion of the discharge vessel comprises both element 12 and element 60. This conclusion is supported by the Suzuki's disclosure.

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First, 12 (a part of tube 11) is made of the same material as 60 (col. 22, lines 8-9).

Second, element 60 of figure 12 is the same as element 14 of figures 3-7 and 10.

Elements 60 and 12 are fused together with in a firing step so that their interface substantially disappears, just as 14 and 12 are fused (col. 18, lines 33-36). As a consequence, the end portion of the discharge vessel includes element 60.

49. Therefore, as stated in the rejection above, figure 12 of Suzuki clearly discloses a coating layer (62A) located on the end part (60) of the discharge vessel between the end part (60) and the sealant (61), and a sealant (60) is located on the coating layer (62A) between the coating layer (62A) and the end closure member (17).

Conclusion

50. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

51. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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52. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Hollweg whose telephone number is (571) 270-1739. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm E.S.T..

53. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

54. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TH/

/NIMESHKUMAR D. PATEL/

Supervisory Patent Examiner, Art Unit 2879